

## **MALE POTTY TRAINER**

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### **TECHNICAL FIELD**

The present invention generally relates to bathroom fixtures and, more particularly, relates to a device to remind the user of a toilet to lower the toilet lid or seat when flushing the toilet.

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### **BACKGROUND OF THE INVENTION**

Women generally appreciate men who remember to lower the toilet lid and seat when they are finished using the toilet. Often in the modern household, the toilet lid and seat are left up to the gentlemen. To constantly remind the male family members to lower the toilet seat and toilet lid is frustrating and is an unnecessary burden on the goodwill of the family relationships. Young male users may be especially troublesome, not recognizing the aesthetic and functional value of a lowered toilet lid and seat, while older males may simply be characterized as thoughtless and stubborn. However, the failure to lower the toilet seat and lid may not be malevolent; the male toilet user may simply have other things going through his mind while tending to the call of nature.

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Most males, both young and old, usually at least remember to flush the toilet after use. Therefore, some type of gentle reminder to lower the toilet lid and seat at the opportune moment of flushing might be successful in encouraging otherwise forgetful gentlemen to lower the toilet lid and seat before leaving the bathroom. However, a device that provides an automatic verbal or visual reminder might be considered annoying by many, and a device that automatically lowers the toilet seat and lid may be too expensive to be economically feasible. Yet simple signs, while inexpensive, tend to be overlooked after a short while. For these reasons, there is a continuing need for an effective and inexpensive way to remind male toilet users of the need to lower the toilet seat and lid after using the toilet.

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## SUMMARY OF THE INVENTION

The present invention provides a solution to the problem of males leaving the toilet lid and seat in the raised position in a reminder device that is attached to the toilet seat or lid in a location that blocks access to the toilet flush handle when the lid or seat is left up. The toilet user must lower the seat and lid, or must reach around the device in an inconvenient manner, to flush the commode while the lid or seat is left up. The device may also includes a warning graphic, emphasizing to the male the advantages of lowering the toilet seat and lid. Over time, it will become a habit to lower the seat and lid, with no distasteful confrontations required between the dominant females of the household and the offending males.

Generally described, the invention includes a toilet seat reminder device installed on a toilet. The reminder device consists of an extension member attached to the toilet seat in a location that blocks access to the toilet flush handle when the toilet seat is in the raised position. The extension member may also be installed on the toilet lid. The extension member is readily attached to the toilet seat with a pressure sensitive adhesive or by a clip engaging the seat. The extension member may be made of foam, plastic or rubber and may be formed into an attractive shape to catch the interest of the target male audience. The extension member is also scented to provide an additional fragrance in the bathroom. A warning graphic is applied to the bottom surface of the extension member and is visible only when the toilet seat is raised.

According to an aspect of the invention, the extension member may include a hinge dividing the extension member into a movable portion and a fixed portion. The fixed portion is attached to the toilet seat as above and the movable portion may rotate about the hinge. The movable portion of the extension member may pivot down when the toilet seat is lowered to be less obtrusive. The movable portion will then extend out as the toilet seat is raised to block access to the toilet flush handle. A spring may be used to bias the movable portion into the extended position. A lever arm may be used to used to pivot the movable portion away from the extended position as the toilet seat is lowered. In yet another embodiment, the weight of the extension member may be

used to cause the movable portion to extend as the toilet seat is raised, and also to cause the movable portion to pivot away from the extended position as the toilet seat is lowered.

The present invention thus provides a device to remind a toilet user to lower the toilet lid or seat prior to flushing the toilet. Other objects, features and advantages of the present invention will become apparent upon reading the following specification, when taken in conjunction with the drawings and the appended claims.

#### BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a side-perspective view of a toilet with the toilet seat reminder device installed and particularly illustrating the extension member, the toilet seat, and the flush handle location.

FIG. 2 is a side-perspective view of the toilet of FIG. 1, illustrating the toilet seat in a raised position and the extension member obscuring the flush handle.

FIG. 3 is a front view of the toilet of FIG. 2, illustrating the flush handle obstructed by the extension member.

FIG. 4 is a front view of the toilet of FIG. 1, illustrating the toilet seat in the lowered position and the toilet seat reminder device affixed to the toilet seat.

FIG. 5 is a side perspective view illustrating a hinged extension member.

FIG. 6 is a side-perspective view of the hinged extension member of FIG. 5 illustrating the movable portion of the extension member rotated about the hinge line.

FIG. 7 is a front view of a toilet with the hinged extension member of FIG. 5 installed.

FIG. 8 is a front view of the toilet of FIG. 7 illustrating the toilet seat in a lowered position.

FIG. 9 is a side perspective view illustrating a hinged extension member with an extension spring and a lever arm.

FIG. 10 is a side-perspective view of the hinged extension member of FIG. 9, illustrating the movable portion of the extension member rotated about the hinge line.

FIG. 11 is a front view of a toilet with the hinged extension member of FIG. 9 installed with the toilet seat lowered.

FIG. 12 is a side perspective view illustrating another embodiment of the hinged extension member.

5        FIG. 13 is a side-perspective view of the hinged extension member of FIG. 12, illustrating the movable portion of the extension member rotated about the hinge line.

FIG. 14 is a side-perspective view of a toilet with the hinged extension member of FIG. 12 installed on the toilet lid.

## 10    DETAILED DESCRIPTION OF THE INVENTION

The invention comprises a reminder device installed upon a typical toilet. The reminder device is installed on the toilet seat in a location where the flush handle of the toilet is obscured by the reminder device when the toilet seat is raised. In this manner, the toilet user is reminded to lower the seat prior to flushing the toilet. The reminder  
15    device comprises an extension member affixed to the toilet seat and extending out and away from the side of the seat. The invention may also be installed upon the toilet lid in a location which obscures the toilet flush handle when the seat is raises. The invention may thus remind a user to lower both the toilet lid and the toilet seat after use.

The extension member may be of solid one-piece construction and extend out  
20    from the toilet seat as the unit is raised and lowered. The extension member may also be hinged comprising a fixed portion attached to the toilet seat, and a movable portion that extends out away form the toilet seat. The hinged construction allows the movable portion to extend out and obstruct access to the toilet flush handle when the toilet seat is raised, but also allows the movable portion to fold down against the side of the toilet  
25    bowl when the toilet seat is lowered and hence, be less obtrusive.

The invention may primarily benefit young male users of a toilet and as such may be formed in an ornamental shape appealing to that audience such as a bunny or race car. The reminder device may also comprise colorful graphics or another suitable image on one or both faces of the extension member. A graphic on the lower face of  
30    the member is visible when the toilet set is raised, but is facing the floor when the toilet

seat is lowered. This graphic may conjure a warning image relevant to the young male user such as a star, an explosion, an angry mother, a crossed-out outline of the toilet with the seat up, or other polite reminder to lower the toilet seat and lid. A graphic on the upper surface of the extension member is only visible when the toilet seat is lowered and may depict a reward or other pleasing image relevant to the young toilet user. For example, a "thank you" message or a decorative embellishment such as a flower, animal figure or other image consistent with the decor of the bathroom may be appropriate for the upper surface because this surface will be visible when the toilet is in its idle configuration with the toilet seat and lid in the lowered position.

The extension member may be construct of materials such as, but not limited too, expanded foam, styrofoam, injection molded plastic, plastic sheet, rubber, or cork. The material should be easily shaped, formed, or molded into the desired shape. The type of material may depend on the method used to manufacture the extension member. In particular, an injection molded foam or plastic may be an advantageous method for mass producing the extension member. In this case, the material should be amenable to injection molding and result in an extension member with the required stiffness and durability. Graphics may be incorporated on the extension member by applying a decal, painting, or molding the graphic into the member surface, or other methods as readily known in the art. The extension member may also be scented with an applied fragrance to provide a fresh scent in the bathroom environment.

Turning now to the drawings, in which like numerals indicate like elements throughout the several views. FIG. 1 shows a typical toilet **10** having a toilet bowl **20**, a water closet **30**, a flush handle **40** and a toilet seat **50**. An extension member **60** is affixed to and extends outward from below the toilet seat **50**. With the toilet seat in the lowered position, the toilet user primarily sees the upper surface **64** of the extension member **60**. As shown in FIGS. 2 and 3, the extension member **60** is affixed to the lower surface **54** of the toilet seat **50** in a location such that, when the toilet seat **50** is raised, the extension member **60** obstructs access to the flush handle **40**. In this manner, the toilet user is encouraged to lower the toilet seat **50** prior to flushing the toilet. As also shown in FIGS. 2 and 3, the upper surface **64** of the extension member

60 is now concealed and the lower surface 66 of the extension member 60 is now visible to the user. A warning graphic 62 placed on the lower surface 66 of the extension member 60 is then only visible when the toilet seat 50 is raised.

FIG. 4 illustrates a typical toilet 10, where the lower surface 54 of the toilet seat 50 is supported off the toilet bowl 20 by spacers 58. The extension member 60 is installed on the lower surface 54 of the toilet seat 50 by a pressure sensitive adhesive 76. The extension member 60 fits in the gap between the toilet seat 50 lower surface 54 and the toilet bowl 20 and hence does not interfere with the operation of the toilet seat or toilet. The extension member may also be affixed to the toilet seat using a clip engaging the toilet seat, double sided tape, or other attachment method apparent to those skilled in the art.

FIG. 5 illustrates another embodiment of the extension member 60. In this embodiment, the extension member 60 is separated into a fixed portion 80 and a movable portion 90 by a hinge 70. The hinge 70 has a hinge axis 72 passing through the body of the extension member 60. As further shown in FIG. 6, the movable portion 90 of the extension member 60 may rotate relative to the fixed portion 80 about the hinge axis 72.

FIG. 7 illustrates an embodiment of FIGS. 5 and 6 installed on a toilet 10 with the toilet seat 50 in the lowered position. The fixed portion 80 of the extension member 60 is affixed to the lower surface 54 of the toilet seat 50 by pressure sensitive adhesive 76. The weight of the movable portion 90 of the extension member 60 urges the movable portion 90 to fold down against the toilet bowl 20. In this position, the extension member 60 is less obtrusive to the toilet user. FIG. 8 illustrates the toilet 10 of FIG. 7 with the toilet seat 50 raised. In this position, the hinge axis 72 of the extension member 60 is angled from vertical in the direction of Vector "A." The movable portion 90 of the extension member 60 is urged to an extended position by the weight of the body of the movable portion 90 and rotates to the extended position as the toilet seat 50 is raised. In the extended position the movable portion 90 obstructs access to the flush handle 40, thus encouraging the toilet user to lower the seat 50 prior to flushing the

toilet **10**. The warning graphic **62** on the lower surface **66** of the movable portion **90** is also visible to provide additional motivation to lower the toilet seat **50**.

FIG. 9 illustrates another embodiment of a hinged extension member **60** of FIG. 5. A coil spring **86** is attached to the fixed portion **80** of the extension member about the hinge **70** and urges the movable portion **90** into the extended position. A lever arm **94** is also supported by the movable portion **90**. As illustrated in FIG. 10, when a force in the direction of Vector "B" is applied to the lever arm **94**, the extension force of the coil spring **86** may overcome and the movable portion **90** and lever arm **94** rotate about the hinge **70** as shown by Vector "C."

FIG. 11 illustrates the hinged extension member **60** of FIGS. 9 and 10 installed on a toilet **10**. The hinged extension member **60** is affixed to the lower surface **54** of the toilet seat **50**. As the toilet seat **50** is lowered, the lever arm **94** contacts the upper surface **24** of the toilet bowl **20**. The contact between the lever arm **94** and the toilet bowl upper surface **24** forces the lever arm **94** and movable portion **90** of the movable portion **90** to rotate and lie adjacent to the toilet bowl **20**.

FIG. 12 illustrates another embodiment of the hinged extension member **60** of FIG. 5. The extension member **60** is again comprised of a fixed portion **80**, a movable portion **90** and a hinge **70**. The hinge **70** is effectively formed by a thin cross-section in the body of the extension member **60**. The elasticity of the material comprising the hinge **70** allows the material to easily bend at the hinge location **70**. The hinge **70** may be effectively formed by selectively weakening the cross-section of the extension member **60** by reducing the section thickness at the desired hinge location. Those skilled in the art will appreciate that other methods may be used to form the hinge in the extension member **60** to include but not limited too, slots or gaps in the material, or by forming a more elastic material at the desired hinge location. The extension member **60** may be comprised of foam, rubber, plastic, or other material with elastic properties that may be readily be formed into the desired shape as known in the art. The movable portion **90** of the extension member **60** is urged to an extended position by the elastic properties of the material comprising the hinge **70**. A lever arm **94** is formed on the movable portion **90**.

As illustrated in FIG. 13, the fixed portion **80** of the hinged extension member **60** of FIG. 12 is affixed to a toilet seat **50**. As the toilet seat **50** is lowered, the lever arm **94** contacts the upper surface **24** of the toilet bowl **20**. The contact with the toilet bowl **20** forces the movable portion **90** and lever arm **94** of the extension member **60** to rotate in the direction of Vector "D." The movable portion **90** is then effectively retracted and lies adjacent to the toilet bowl **20**. As the toilet seat **50** is raised, the elastic properties of the material comprising the hinge **70** will urge the movable portion **90** back to the extended position.

FIG. 14 illustrates the invention installed on a toilet lid **56**. The toilet **10** has a toilet bowl **20**, a water closet **30**, a flush handle **40** and a toilet seat **50**. The extension member **60** of any of the above embodiments is affixed to the toilet lid **56** and extends outward from the toilet lid **56** in a location which will block access to the flush handle **40** when the toilet lid **56** is raised. The extension member **60** thus reminds the toilet user to lower both the toilet lid **56** and toilet seat **50** prior to flushing the toilet **10**.

Given the preceding examples, those skilled in the art will appreciate that many other extension member configurations may be employed to practice the present invention. It will also be understood that throughout this specification the invention has been disclosed by way of example, and that other modifications may occur to those skilled in the art without departing from the spirit and scope of the invention defined by the following claims.

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